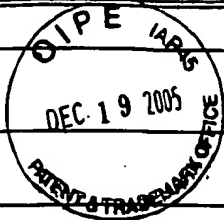
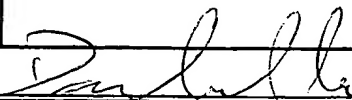


Sheet 1 of 1		INFORMATION DISCLOSURE STATEMENT					
FORM PTO 1449 (modified)  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)  Date Submitted to PTO: December 19, 2005				ATTY DOCKET NO. 2000_1422		SERIAL NO. 09/686,466	
				APPLICANT Mitsuaki OSHIMA et al.			
				FILING DATE October 12, 2000			
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
DA	AA	4,597,090	6-24-86	Forney, Jr.			
	AB	4,077,021	2-28-78	Csajka et al.			
	AC	<del>2005/0084750</del>	<del>4-21-05</del>	<del>Wang et al.</del>			
	AD	<del>2005/0058633</del>	<del>3-17-05</del>	<del>Epstein et al.</del>			
	AE	<del>2005/0022022</del>					
	AF	4,918,437	4-17-90	Jasinski et al.			
	AG	5,023,889	6-11-91	Divsalar et al.			
	AH	5,063,452	11-5-91	Higurashi			
	AI	5,124,852	6-23-92	Suwa et al.			
	AJ	5,136,380	8-4-92	Cho			
	AK	5,146,335	9-8-92	Kim et al.			
	AL	5,148,422	9-15-92	Sako et al.			
DA	AM	5,218,436	6-8-93	Sugiyama et al.			
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
DA	AN	2627574	7-21-04	CN			
	AO	1529838	5-11-05	EP			abstract
	AP	1499725	5-26-04	CN			only abstract
	AQ	2004-159207	6-3-04	JP			corresponds to AP
	AR	1528854	5-11-05	EP			only abstract
	AS	52118	12-16-02	UA			only abstract
DA	AT	1569334	1-26-05	CN			
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
	AU						
EXAMINER				DATE CONSIDERED 01/10/05			

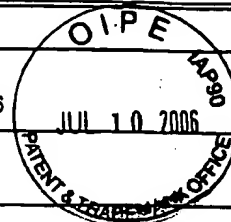
\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include cop. this form with next communication to applicant.

## INFORMATION DISCLOSURE STATEMENT

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Mitsuaki OSHIMA et al.FILING DATE  
October 12, 2000GROUP  
2634

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/DH/	AA	4,267,592	5-12-81	Craiglow			
/DH/	AB	4,601,045	7-15-86	Lubarsky			
/DH/	AC	4,912,706	3-27-90	Eisenberg et al.			
/DH/	AD	4,914,655	4-3-90	Johannes et al.			
/DH/	AE	5,018,198	5-21-91	Takahashi			
/DH/	AF	4,003,002	1-11-77	Snijders et al.			
/DH/	AG	4,053,713	10-11-77	Nitadori			
	AH						
	AI						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
	AJ							
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U.S. DEPARTMENT OF COMMERCE  
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## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
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	AB						
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## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AJ						
	AK						
	AL						
	AM						
	AN						

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

DA	AO	J. A. C. Bingham, "Multicarrier Modulation for Data Transmission: An Idea Whose Time Has Come", IEEE Communications Magazine, Vol. 28, May 1990, pages 5-8 and 11-14
DA	AP	B. Hirosaki, "An Orthogonally Multiplexed QAM System Using the Discrete Fourier Transform", IEEE Transactions on Communications, Vol. Com-29, No. 7, July 1981, pages 982-989
DA	AQ	L. J. Cimini, Jr., "Analysis and Simulation of a Digital Mobile Channel Using Orthogonal Frequency Division Multiplexing", IEEE Transactions on Communications, Vol. Com-33, No. 7, July 1985, pages 665-675 and Annex

EXAMINER

DATE CONSIDERED

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## INFORMATION DISCLOSURE STATEMENT

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PATENT AND TRADEMARK OFFICEATTY DOCKET NO.  
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09/686,466LIST OF REFERENCES CITED BY APPLICANT(S)  
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Mitsuaki OSHIMA et al.

Date Submitted to PTO: March 23, 2005

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October 12, 2000GROUP  
2634

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
DAH	AA	3,824,548	7-16-74	Sullivan et al.	—	—	—
	AB	3,959,726	5-25-76	Hinoshita et al.	—	—	—
	AC	4,303,939	12-1-81	Stephens et al.	—	—	—
	AD	4,303,941	12-1-81	Marti et al.	—	—	—
	AE	4,309,726	1-5-82	Tanaka et al.	—	—	—
	AF	4,535,352	8-85	Haskell	—	—	—
	AG	4,564,858	1-14-86	Resch	—	—	—
	AH	4,581,639	4-8-86	Judge	—	—	—
	AI	4,769,819	9-6-88	Matsutani et al.	—	—	—
	AJ	4,794,447	12-27-88	Tsinberg	—	—	—
	AK	4,817,192	3-28-89	Phillips et al.	—	—	—
	AL	5,029,003	7-91	Jonnalagadda	—	—	—
	AM	5,134,464	7-28-92	Basile et al.	—	—	—
	AN	5,400,084	3-21-95	Scarpa	—	—	—
DAH	AO	5,214,656	5-25-93	Chung et al.	—	—	—

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## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
DAH	AP	3-48587	3-1-91	Japan	—	—	abstract

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

DAH	AQ	Masafumi SAITO et al., "Bit Error Rate Characteristics of OFDM in Multipath Environment", 1991					
DAH	AR	Ryutaro OHMOTO et al., " $\pi/4$ -shift QPSK Subcarrier Transmission", 1991					

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## INFORMATION DISCLOSURE STATEMENT

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
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Date Submitted to PTO: March 23, 2005

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09/686,466APPLICANT  
Mitsuaki OSHIMA et al.FILING DATE  
October 12, 2000GROUP  
2634

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
DH	AA	5,181,112	1-19-93	Citta et al.			
	AB	5,377,051	12-27-94	Lane et al.			
	AC	5,576,902	11-19-96	Lane et al.			
	AD	5,218,622	6-8-93	Fazel et al.			
	AE	5,561,468	10-1-96	Bryan et al.			
	AF	5,598,220	1-97	Citta et al.			
	AG	5,802,241	9-1-98	Oshima			
	AH	4,800,426	1-24-89	Glenn			
DH	AI	5,007,088	4-9-91	Ooi et al.			

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## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
	AJ							
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## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

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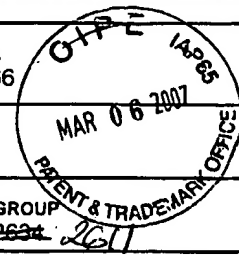
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FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
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Date Submitted to PTO: March 6, 2007

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09/686,466APPLICANT  
Mitsuaki OSHIMA et al.FILING DATE  
October 12, 2000GROUP  
2634

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/DH/	AA	5,210,770	5-11-93	Rice			
/DH/	AB	5,519,730	5-21-96	Jasper et al.			
	AC						
	AD						
	AE						
	AF						
	AG						
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	AI						

## FOREIGN PATENT DOCUMENTS

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/DH/	AJ	3-13145	1-22-91	Japan			abstract
/DH/	AK	4-322592	11-12-92	Japan			abstract
/DH/	AL	63-253738	10-20-88	Japan			abstract
/DH/	AM	62-502932	11-19-87	Japan			abstract
/DH/	AN	58-107740	6-27-83	Japan			abstract

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

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09/686,466

U.S. DEPARTMENT OF COMMERCE  
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APPLICANT  
Mitsuaki OSHIMA et al.

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October 12, 2000

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2634

Date Submitted to PTO: December 31, 2002

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/DH/	AA	4,940,954	7-10-90	Aubert et al.			
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		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
/DH/	AJ	2-141049	5-30-90	Japan			X
/DH/	AK	2-195732	8-2-90	Japan			abstract
/DH/	AL	5-167633	7-2-93	Japan			abstract
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	AN						

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

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